Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Accelerating Wireless Broadband Deployment	)	WT Docket No. 17-79
by Removing Barriers to Infrastructure	)	
Investment	)	

COMMENTS OF MOBILE FUTURE

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EXECUTIVE SUMMARY

Wireless providers are moving quickly to develop next-generation 5G services that will unleash the Internet of Things and offer connectivity in new ways across every aspect of life. However, making 5G a reality in the United States depends on the ability of providers to deploy the vast networks 5G will require. It is critical that the Commission pursue intelligent deregulatory, pro-investment policies to facilitate the ability of wireless infrastructure builders to raise the massive amounts of necessary capital.

While the Commission has taken meaningful steps to ease regulatory impediments to wireless deployment in recent years, providers continue to face unnecessary obstacles that the Commission has the authority to remove. Specifically, the Commission should:

- Adopt a deemed granted remedy for all local siting applications following expiration of applicable shot clocks;
- Reduce the shot clock for new deployments from 150 days to 90 days;
- Expand the 60-day shot clock to cover *all* collocation applications;
- Make clear that moratoria and *de facto* moratoria on the acceptance, processing, and acting upon siting applications violate Sections 253 and 332 of the Communications Act;
- Set clear timelines for acting on environmental review issues under the National Environmental Policy Act;
- Expand exclusions from review under Section 106 of the National Historic Preservation Act; and
- Streamline Commission processes for consulting with tribes regarding deployments on non-tribal lands.

Providers will also need access to the spectrum necessary to support 5G networks. Accordingly, the Commission should approve secondary market transactions promptly to ensure spectrum is available without delay for providers who will put it to use. These actions will facilitate investment in wireless infrastructure, create new jobs, and strengthen the United States economy.

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COMMENTS OF MOBILE FUTURE

Mobile Future submits these comments in response to the above-captioned Federal Communications Commission's ("FCC" or "Commission") Notice of Proposed Rulemaking and Notice of Inquiry.[1] Next-generation 5G services and the continued advancement of the Internet of Things ("IoT") will soon connect even more of our devices and will offer connectivity in new ways at home, in schools and hospitals, at work, in our vehicles, and across every aspect of life. 5G will only become a reality in the United States, however, if providers are able to deploy the vast networks 5G will require. Too many regulatory barriers still lie in the road to 5G. Although the Commission has taken some steps to ease regulatory impediments to wireless deployment in recent years, providers continue to face unnecessary obstacles that the Commission has the authority to remove. Specifically, the Commission should:

- Adopt a deemed granted remedy for all local siting applications following expiration of applicable shot clocks;
- Reduce the shot clock for new deployments from 150 days to 90 days;
- Expand the 60-day shot clock to cover *all* collocation applications;

[1] *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, Notice of Proposed Rulemaking and Notice of Inquiry, 32 FCC Rcd 3330 (2017) ("*NPRM*").

- Make clear that moratoria and *de facto* moratoria on the acceptance, processing, and acting upon siting applications violate Sections 253 and 332 of the Communications Act;

- Set clear timelines for acting on environmental review issues under the National Environmental Policy Act ("NEPA");

- Expand exclusions from review under Section 106 of the National Historic Preservation Act ("NHPA"); and

- Streamline Commission processes for consulting with tribes regarding deployments on non-tribal lands.

The Commission should also promptly approve secondary market transactions to ensure spectrum required for 5G networks is available without delay for providers who will put it to use. These actions will facilitate investment in wireless infrastructure, create new jobs, and strengthen the United States economy.

I. DUE TO INCREASING CONSUMER DEMAND FOR MOBILE BROADBAND AND THE TRANSITION TO 5G NETWORKS, THE COMMISSION SHOULD REDUCE BARRIERS TO INFRASTRUCTURE DEPLOYMENT.

To meet American consumer demand for mobile data and to enable next-generation 5G networks, network operators will need to densify their networks. Today, the average U.S. household owns 2.4 smartphones,[2] and by 2022, the average home could have as many as 500 connected devices.[3] Seventy-seven percent of Americans now own a smartphone, up from 35 percent in 2011.[4] Likewise, demand for data consumed over wireless devices continues to skyrocket. Mobile data usage in the United States increased by more than 42 percent in just one

[2] Ina Fried, *Americans Now Have Nearly as Many Smartphones as TVs*, recode (May 9, 2016), https://www.recode.net/2016/5/9/11640176/american-households-smartphones-tvs.

[3] Press Release, *Gartner Says a Typical Family Home Could Contain More than 500 Smart Devices by 2022*, Gartner (Sept. 8, 2014), http://www.gartner.com/newsroom/id/2839717.

[4] Mobile Fact Sheet, Pew Research Center (Jan. 12, 2017), http://www.pewinternet.org/factsheet/mobile/.

year, from 9.65 trillion megabytes to 13.72 trillion megabytes between 2015 and 2016.[5] By 2021, United States mobile data traffic will reach 6.1 exabytes per month, up from 1.3 exabytes per month in 2016.[6] The United States led the world in 4G LTE deployment and is poised to continue its leadership in 5G. Today, 99.7 percent of Americans have access to 4G LTE,[7] and 4G accounted for 93 percent of all mobile traffic in the U.S. at the end of 2016.[8] America's wireless companies built out 4G LTE services covering 98.5 percent of the population in only three and a half years between 2010 and 2014.[9]

Now, wireless providers are moving quickly to develop and deploy next-generation 5G services to consumers. AT&T has moved into a new round of 5G testing in Austin, Texas and Indianapolis, Indiana, and expects to achieve data rates of 1 Gbps by the end of 2017.[10] In February, Verizon announced that it will deliver 5G pre-commercial services to customers in 11

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[5] *Annual Wireless Industry Survey*, CTIA, http://www.ctia.org/industry-data/ctia-annual-wireless-industry-survey (last visited June 7, 2017).

[6] *VNI Mobile Forecast Highlights, 2016-2021*, Cisco, http://www.cisco.com/assets/sol/sp/vni/forecast_highlights_mobile/ (last visited June 7, 2017).

[7] *In the Matter of Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993 Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Nineteenth Report, 31 FCC Rcd 10534, 10564 ¶ 39 Chart III.A.2 (2016).

[8] *VNI Mobile Forecast Highlights, 2016-2021*, Cisco, http://www.cisco.com/assets/sol/sp/vni/forecast_highlights_mobile/ (last visited June 7, 2017).

[9] Press Release, *Blazingly Fast: Verizon Wireless Launches the World's Largest 4G LTE Network on Sunday, Dec. 5*, Verizon (Dec. 3, 2010), https://www.verizonwireless.com/news/2010/12/pr2010-12-03.html; *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Services*, Seventeenth Report, 29 FCC Rcd 15311, 15336, 15340 ¶¶ 51, 59 (2014); *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Services*, Fifteenth Report, 26 FCC Rcd 9664, 9720 ¶ 70 (2011).

[10] *AT&T Network 3.0 Indigo Redefining Connectivity through Software Control, Big Data, and Blazing Speed*, AT&T Newsroom (Feb. 1, 2017), http://about.att.com/story/indigo_redefining_connectivity.html.

markets across the country on its newly built 5G network,[11] and the company has already begun densifying its network using advanced small cell deployments.[12] Similarly, T-Mobile recently announced plans to launch a national 5G network by 2020, with rollout beginning in 2019.[13] Equipment manufacturers Ericsson and Nokia have been involved in multiple 5G trials with a variety of partners.[14] And Samsung recently unveiled its end-to-end portfolio of 5G mobile network products and solutions, with pre-commercial versions of the equipment already under deployment in trial networks.[15] By 2022, technologists predict that 25 percent of North American mobile subscriptions will be 5G connections.[16] To meet 5G demand, U.S. telecom operators will need to invest approximately $275 billion in next-generation networks over the next seven years, which is expected to create up to three million jobs and boost annual GDP by $500 billion.[17]

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[11] Press Release, *Verizon to deliver 5G service to pilot customers in 11 markets across U.S. by Mid 2017* (Feb. 22, 2017), http://www.verizon.com/about/news/verizon-deliver-5g-service-pilot-customers-11-markets-across-us-mid-2017.

[12] *New Network Technologies Coming for Our Customers in 2017*, Verizon Blog (Jan. 23, 2017), http://www.verizon.com/about/news/new-network-technologies-coming-our-customers-2017-building-2016-accomplishments.

[13] Jon Fingas, *T-Mobile Plans to Launch a National 5G Network by 2020*, Engadget (May 2, 2017), https://www.engadget.com/2017/05/02/t-mobile-plans-national-5g-network-by-2020/.

[14] Jon Gold, *2016 – The Year 5G Wireless Testing Took Off* (Nov. 21, 2016), http://www.networkworld.com/article/3143106/mobile-wireless/2016-the-year-5g-wireless-testing-really-took-off.html.

[15] *Samsung Announces Complete Portfolio of Commercial 5G Products and Solutions* (Feb. 26, 2017), http://www.samsung.com/global/business/networks/insights/news/samsung-announces-complete-portfolio-of-commercial-5g-products-and-solutions.

[16] Ericsson, *Ericsson Mobility Report: On the Pulse of the Networked Society* (Nov. 2016), https://www.ericsson.com/assets/local/mobility-report/documents/2016/ericsson-mobility-report-november-2016.pdf.

[17] *See How 5G Can Help Municipalities Become Vibrant Smart Cities*, Accenture Strategy (Jan. 12, 2017), http://www.ctia.org/docs/default-source/default-document-library/how-5g-can-help-municipalities-become-vibrant-smart-cities-accenture.pdf.

In light of the need for America's wireless infrastructure builders to raise such massive amounts of capital to fund the build out of 5G networks, it is critical that the Commission pursue intelligent deregulatory, pro-investment policies. The Commission should take many of the steps outlined in its *NPRM* to remove and reduce unnecessary barriers to the rapid deployment of wireless infrastructure in the United States. As providers enhance existing 4G LTE networks and prepare to deploy 5G, dense networks of small cells are an increasingly important element of network design. The facilities used to densify networks tend to be collocations, which involve little to no ground disturbance and are much smaller than traditional macro cell sites. However, many existing infrastructure siting processes and regulations are based on outdated and inaccurate assumptions regarding size and disturbance associated with macro cell deployments. As Chairman Pai and Commissioner O'Rielly have explained, applying legacy regulations to small wireless deployments imposes significant financial burdens on providers and unnecessarily delays deployments to the detriment of consumers.[18]

In addition to the ability to deploy infrastructure quickly, providers will also need access to the spectrum necessary to support 5G networks. Accordingly, the Commission should approve secondary market transactions promptly to ensure spectrum is available without delay for providers who will put it to use. As the Commission recognized in the *Spectrum Frontiers Order*, "[m]oving quickly to make [millimeter wave spectrum] available in the near term will best enable potential users, technology developers, and innovators to have relative certainty about the spectrum structure in the mmW bands for these new uses."[19] In the same spirit, the

[18] *See, e.g., NPRM*, Statement of Chairman Ajit Pai at 3385, Statement of Commissioner Michael O'Rielly at 3388.

[19] *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014, 8020 ¶ 7 (2016).

Commission should move quickly to approve secondary market spectrum transactions to spread the availability of this crucial resource.

II. THE COMMISSION SHOULD ACCELERATE AND STRENGTHEN ITS SHOT CLOCKS TO SPEED LOCAL REVIEW PROCESSES.

A. The Commission Should Adopt a Deemed Granted Remedy for All Local Siting Applications Following Expiration of Applicable Shot Clocks.

The Commission should expand the availability of a deemed granted remedy to all local siting applications following the expiration of the relevant shot clock. The Commission took the important and beneficial step of adopting a deemed granted remedy for applications covered by Section 6409(a) in its *2014 Infrastructure Order*.[20] That decision allows providers to move forward on deployments following non-action by a locality after expiration of the relevant shot clock, but only applies to covered deployments, including collocations on towers or structures that already host antennas and which would not result in a substantial changes to the underlying structure.[21] The Commission's shot clocks under Section 332(c)(7) for other deployments provide that an applicant may seek a remedy in court if a locality does not act upon an application within the relevant shot clock time period. In many cases, however, a judicial remedy is insufficient because it requires providers to choose between continuing to pursue the application with the locality, without any guarantee regarding when the locality may act, or moving forward with litigation, which is costly, often takes years, and typically results in the court referring the application back to the locality.[22] To speed local reviews, the Commission

[20] *Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies*, Report and Order, 29 FCC Rcd 12865 (2014) ("*2014 Infrastructure Order"*), erratum, 30 FCC Rcd 31 (2015), *aff'd*, *Montgomery County v. FCC*, 811 F.3d 121 (4th Cir. 2015).

[21] *Id.*

[22] *See, e.g., Up State Tower Co. v. Town of Kiantone*, No. 1:16-cv-00069, 2016 U.S. Dist. LEXIS 170827 (W.D.N.Y. Dec. 9, 2016).

should adopt a deemed granted remedy for applications under Section 332(c)(7) so that the Commission's shot clocks are true limits on the time allowed to review a complete application.[23]

B. The Commission Should Reduce the Shot Clock for New Deployments from 150 Days to 90 Days.

The Commission should shorten the amount of time permitted for a locality to review an application for new, non-collocation wireless facilities from 150 days to 90 days. Section 332(c)(7) permits the Commission to determine what constitutes a "reasonable period of time" for a locality to review an application, and adopting a 90-day shot clock is reasonable.[24] The Commission's adoption of a 150-day shot clock in 2009 for new builds was an important step in streamlining the local siting process.[25] However, now that localities have experience reviewing applications and many applications are for smaller facilities, siting reviews can be completed more quickly than when the Commission adopted the 150-day shot clock eight years ago. Many localities already act on applications within 90 days or less, indicating that allowing three months to review an application is both sufficient and reasonable. For example, Minnesota and Kentucky have statutes requiring non-collocation applications to be processed within 60 days, and Michigan and Virginia require non-collocation applications to be processed within 90 days.[26] Reducing the shot clock for non-collocation applications from 150 days to 90 days will provide localities with the time they require to process applications while removing unnecessary deployment delays for new antennas required to support 5G services.

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[23] *NPRM* at 3333-4 ¶ 8.

[24] 47 U.S.C. § 332(c)(7).

[25] *Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7) to Ensure Timely Siting Review*, Declaratory Ruling, 24 FCC Rcd 13994 (2009) ("*2009 Declaratory Ruling*"), *aff'd, City of Arlington v. FCC*, 668 F.3d 229 (5th Cir. 2012), *aff'd*, 133 S. Ct. 1863 (2013).

[26] Minn. Stat. § 15.99, Subd. 2(a); Ky. Rev. Stat. § 100.987(4)(c); Mich. Comp. Laws Serv. § 125.3514(8); Va. Code Ann. § 15.2-2232(F).

C. The Commission Should Expand the 60-Day Shot Clock to Cover All Collocation Requests.

The Commission should expand the 60-day shot clock to apply to all collocation applications, regardless of whether the proposed underlying structure already hosts other wireless facilities. The Commission adopted the 60-day shot clock in the *2014 Infrastructure Order* for collocations covered by Section 6409(a) of the Spectrum Act,[27] while collocations on structures without preexisting antennas are subject to a longer 90-day shot clock adopted in the Commission's *2009 Declaratory Ruling* under Section 332 of the Communications Act.[28] However, collocations always are less disruptive than new builds and should be subject to the same 60-day shot clock. As noted above, Section 332(c)(7) permits the Commission to determine what constitutes a "reasonable period of time" for a locality to review an application. Adopting a 60-day shot clock is reasonable, and many localities already process collocations on similar or shorter timelines. For example, New Hampshire and Wisconsin require localities to act on collocations within 45 calendar days.[29] Minnesota requires localities to process certain collocation applications within 60 days, and Michigan requires localities to process certain collocation applications within 60 days while others are exempt from review altogether.[30]

[27] *See 2014 Infrastructure Order.*

[28] *See 2009 Declaratory Ruling.*

[29] Fla. Stat. Ann. § 365.172(13)(d)(1)-(2); N.H. Rev. Stat. Ann. § 12-K:10(II); Wis. Stat. § 66.0404(3)(c).

[30] Minn. Stat. § 15.99, Subd. 2(a); Mich. Comp. Laws Serv. § 125.3514(1)-(6).

III. THE COMMISSION SHOULD PROVIDE GUIDANCE ON PRACTICES THAT VIOLATE SECTIONS 253 AND 332 AND INHIBIT DEPLOYMENT, INCLUDING MORATORIA AND *DE FACTO* MORATORIA ON ACCEPTNG AND GRANTING APPLICATIONS.

The Commission should make clear that any moratoria or *de facto* moratoria on the acceptance, processing and acting on siting requests violate Sections 253 and 332.[31] Sections 253 and 332 of the Communications Act both contain provisions preventing localities from taking actions that "prohibit or have the effect of prohibiting" any entity from providing service.[32] Moratoria on accepting or processing applications, whether directly or indirectly, delay, and therefore prevent, providers from deploying infrastructure and providing service as well as from competing with other providers. Moratoria and *de facto* moratoria therefore violate the core purpose of Sections 253 and 332. The Commission must make clear that moratoria are prohibited under the Act. For these purposes, the Commission should define a moratorium as any refusal to accept or process applications during a period when the permitting authority is conducting regular business for other purposes. This definition is appropriate because it only requires municipalities and other permitting authorities to treat applications in the same way as other activities they conduct. Further, the Commission can address *de facto* moratoria caused by a refusal to act on applications through the adoption of a shot clock, as discussed above.

The Commission should also address other practices violate Sections 253 and 332 by prohibiting or have the effect of prohibiting entities from providing service, such as fees for processing applications and accessing the rights of way that are in excess of localities' actual costs for reviewing applications and providing access, and requirements to locate facilities underground.

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[31] 47 U.S.C. §§ 253, 332(c).

[32] *Id.*

IV. THE COMMISSION SHOULD STREAMLINE ITS OWN SITING REVIEW PROCESSES.

The Commission should also take steps to streamline its own siting processes by setting timelines for acting on environmental review issues under NEPA, expanding exclusions under NHPA, and eliminating indefinite delays during the tribal consultation process. Under the Commission's NEPA rules, applicants are required to prepare and file Environmental Assessments ("EA") if proposed sites meet any of the conditions specified in the Commission's rules.[33] But the Commission is not required to act on issues related to EAs on any set timeline, and the process can take months or even years. To limit delays and reduce uncertainty, the Commission should set clear timeframes for acting on EAs and other issues related to NEPA.

The Commission should expand the exclusions from review under Section 106 of the NHPA for small facilities and other activities unlikely to affect historic properties. The Commission has authority to exclude activities that are expected to have no or minimal effect on historic properties from Section 106 review and should exercise that authority here.[34] Further, the Commission should seek to revise the Nationwide Programmatic Agreement to expand the categories of facilities that are excluded from Section 106 review. Specifically, as proposed in the *NPRM*, the Commission should seek revisions to the NPA to: exclude replacement poles from Section 106 review even when the pole is located in a historic district and was not constructed for the purpose of supporting wireless antennas; expand the exemption from Section 106 review to construction of facilities in transportation rights of way; and exclude collocations located between 50 and 250 feet from historic districts from Section 106 Review.[35] Each of

[33] 47 C.F.R. §§ 1.1307(a), 1.1308(a), 1.1312(b).

[34] 36 C.F.R. §§ 800.3(a)(1), 800.14(c).

[35] NPRM at 3353-6 ¶¶ 67-75.

these situations involves small facilities that are unlikely to affect historic properties given their size, and the exemptions from Section 106 review should be expanded to eliminate unnecessary reviews for such facilities.

The Commission should modify its processes for consulting with tribes regarding deployments on non-tribal lands to provide concrete timelines and eliminate indefinite delays.[36] When a tribe indicates that it wants to review a project, the provider cannot begin construction until the tribe or the Commission notifies the provider that it can proceed. But the Commission's rules do not provide time limits on how long a tribe has to review a project, and there is no process in place to address situations where a tribe delays a project indefinitely by indicating interest in a site and then declining to respond further. The Commission should adopt a time limit for tribes to review applications and a process to allow providers to move forward with construction on non-tribal lands in the event a tribe expresses interest in reviewing a site but does not respond further.

[36] Tribal consultations often are required in Section 106 reviews of non-tribal lands that are near traditional cultural places or other tribe-related cultural resources, such as archaeological sites.

V. CONCLUSION

For the reasons outlined above, the Commission should promptly approve secondary market transactions and take steps to strengthen its shot clocks, eliminate moratoria and excessive application fees, and streamline its own infrastructure siting policies to speed infrastructure siting processes and facilitate the rapid deployment of 5G services in the United States.

Respectfully submitted,

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